



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/593,001

07/22/2008

Lars Wingeier

COW-0540

6971

23575 7590 01/27/2012
CURATOLO SIDOTI CO., LPA
24500 CENTER RIDGE ROAD, SUITE 280
CLEVELAND, OH 44145

EXAMINER

BOECKMANN, JASON J

ART UNIT

PAPER NUMBER

3752

MAIL DATE

DELIVERY MODE

01/27/2012

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/593,001

Applicant(s)

WINGEIER ET AL.

Examiner

JASON BOECKMANN

Art Unit

3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-9 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1-9 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 15 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 9/15/2006, 12/22/2009.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of group I in the reply filed on 9/30/2011 is acknowledged. The traversal is on the ground(s) that PCT rule 13.2 was not followed during restriction. This is found persuasive and the requirement is withdrawn.

Claims 1-9 remain in the case.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are replete with errors too numerous to mention specifically. The following noted informalities are merely exemplary thereof:

It is unclear what is meant by the term "optionally located" in line 7 of claim 1, is the connection point located on the nozzle, or is it not on the nozzle?

It is also unclear what is meant by the term "it being possible" in line 8 of claim 1. Is the spray nozzle and lance moved by joints, or is it not?

Claim 1 recites the limitation "the outlet opening" in 23. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Barannfors et al. (3,224,203).

Barannfors et al. shows an apparatus for coating the inner surface of a tunnel section with sprayed concrete comprising: a spray nozzle (8), a spray lance (7) at which one end the spray nozzle is arranged, a carrier (5), on which the spray lance is fixed, and a connection point for a connecting line (9) for the delivery, of sprayed concrete, which is optionally located on the spray nozzle (fig 1), the spray lance and the spray nozzle being mounted such that they are to be moved by means of the following joints:

a first joint (6) having a vertical axis which connects the carrier and the spray lance to each other and mounts the spray lance in such a way that the spray lance can be moved in rotation about the vertical axis,

a second joint (where element 26 pivots element 7 about element 23) via which a segment (28) of the spray lance that faces the spray nozzle can be raised and lowered,

a third joint (the extendable spray lance 7) via which the segment (28) of the spray lance that faces the spray nozzle can be lengthened or shortened telescopically, the segment of the spray lance that faces the spray nozzle having a longitudinal axis,

a forth joint (34) via which the spray nozzle can be moved in rotation about the longitudinal axis of the segment (28) of the spray lance that faces the spray nozzle, and

a fifth joint (pivot 32) via which the spray nozzle can be moved in such a way that the outlet opening (8) of the spray nozzle can be brought close to or away from the longitudinal axis of the segment of the spray lance that faces the spray nozzle

and a control device (44), with which the movements of the spray lance can be directed via the first, second, and third joints and a control device (44), with which the movements of the spray nozzle can be directed via the fourth and fifth joints.

Regarding claim 3, the first control device is computer-operated (it has to have some sort of computer) and the second control device can be operated manually, without computer assistance, with the aid of a joystick (44).

Regarding claims 4 and 7, the carrier is arranged on a mobile chassis (4).

Regarding claim 5, the segment (28) of the spray lance that faces the spray nozzle is a telescopic arm.

Regarding claim 6, a segment (the other end of element 28) of the spray lance that faces away from the spray nozzle can be extended in the direction of the spray nozzle, so that, by means of appropriate extension and retraction, the distance between the carrier and the spray nozzle can be varied, provision being made that, during operation, the segment (6) of the spray lance that faces away from the spray nozzle is

Art Unit: 3752

fixed in an extended position and, during transport and parking, the segment of the spray lance that faces away from the spray nozzle is fixed in a correspondingly retracted position, in which the distance between the carrier and the spray nozzle is relatively small.

Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Relyea (5,788,158).

Relyea shows an apparatus for coating the inner surface of a tunnel section with sprayed concrete comprising: a spray nozzle (27), a spray lance (22) at which one end the spray nozzle is arranged, a carrier (18), on which the spray lance is fixed, and a connection point for a connecting line (124) for the delivery, of sprayed concrete, which is optionally located on the spray nozzle (fig 6), the spray lance and the spray nozzle being mounted such that they are to be moved by means of the following joints:

a first joint (between 18 and 12) having a vertical axis which connects the carrier and the spray lance to each other and mounts the spray lance in such a way that the spray lance can be moved in rotation about the vertical axis,

a second joint (where element 22 pivots about element 18) via which a segment (22) of the spray lance that faces the spray nozzle can be raised and lowered,

a third joint (the extendable spray lance 22) via which the segment (22) of the spray lance that faces the spray nozzle can be lengthened or shortened telescopically, the segment of the spray lance that faces the spray nozzle having a longitudinal axis,

a forth joint (103) via which the spray nozzle can be moved in rotation about the longitudinal axis of the segment (22) of the spray lance that faces the spray nozzle, and

a fifth joint (pivot 122) via which the spray nozzle can be moved in such a way that the outlet opening (126) of the spray nozzle can be brought close to or away from the longitudinal axis of the segment of the spray lance that faces the spray nozzle

and a control device (32), with which the movements of the spray lance can be directed via the first, second, and third joints and a control device (28), with which the movements of the spray nozzle can be directed via the fourth and fifth joints.

Regarding claim 2, the control devices can in each case be operated manually, without computer assistance, with the aid of two joysticks (28, 32), one joystick belonging exclusively to the first control device and the other joystick belonging exclusively to the second control device (fig 5).

Regarding claim 3, the first control device is computer-operated (it has to have some sort of computer) and the second control device can be operated manually, without computer assistance, with the aid of a joystick (32).

Regarding claims 4 and 7, the carrier is arranged on a mobile chassis (12).

Regarding claim 5, the segment (22) of the spray lance that faces the spray nozzle is a telescopic arm.

Regarding claim 6, a segment (the other end of element 22) of the spray lance that faces away from the spray nozzle can be extended in the direction of the spray nozzle, so that, by means of appropriate extension and retraction, the distance between the carrier and the spray nozzle can be varied, provision being made that, during

Art Unit: 3752

operation, the segment (6) of the spray lance that faces away from the spray nozzle is fixed in an extended position and, during transport and parking, the segment of the spray lance that faces away from the spray nozzle is fixed in a correspondingly retracted position, in which the distance between the carrier and the spray nozzle is relatively small.

Claims 1 and 3-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Amberg et al. (5,851,580).

Amberg et al. shows an apparatus for coating the inner surface of a tunnel section with sprayed concrete comprising: a spray nozzle (9), a spray lance (6) at which one end the spray nozzle is arranged, a carrier (2), on which the spray lance is fixed, and a connection point for a connecting line (fig 1) for the delivery, of sprayed concrete, which is optionally located on the spray nozzle (fig 1), the spray lance and the spray nozzle being mounted such that they are moved by means of the following joints:

a first joint (between 10 and 2) having a vertical axis which connects the carrier and the spray lance to each other and mounts the spray lance in such a way that the spray lance can be moved in rotation about the vertical axis,

a second joint (where element 5 pivots about element 10) via which a segment (6) of the spray lance that faces the spray nozzle can be raised and lowered,

a third joint (the extendable spray lance 6) via which the segment (6) of the spray lance that faces the spray nozzle can be lengthened or shortened telescopically, the segment of the spray lance that faces the spray nozzle having a longitudinal axis,

a forth joint (7) via which the spray nozzle can be moved in rotation about the longitudinal axis of the segment (6) of the spray lance that faces the spray nozzle, and

a fifth joint (pivot 15) via which the spray nozzle can be moved in such a way that the outlet opening (9) of the spray nozzle can be brought close to or away from the longitudinal axis of the segment of the spray lance that faces the spray nozzle

and a control device (the control unit), with which the movements of the spray lance can be directed via the first, second, and third joints and a control device (the control unit), with which the movements of the spray nozzle can be directed via the fourth and fifth joints.

Regarding claim 3, the first control device is computer-operated (it has to have some sort of computer) and the second control device can be operated manually, without computer assistance, with the aid of a joystick

Regarding claims 4 and 7, the carrier is arranged on a mobile chassis (2).

Regarding claim 5, the segment (6) of the spray lance that faces the spray nozzle is a telescopic arm.

Regarding claim 6, a segment (the other end of element 6) of the spray lance that faces away from the spray nozzle can be extended in the direction of the spray nozzle, so that, by means of appropriate extension and retraction, the distance between the carrier and the spray nozzle can be varied, provision being made that, during

Art Unit: 3752

operation, the segment of the spray lance that faces away from the spray nozzle is fixed in an extended position and, during transport and parking, the segment of the spray lance that faces away from the spray nozzle is fixed in a correspondingly retracted position, in which the distance between the carrier and the spray nozzle is relatively small.

Regarding claims 8 and 9, the method steps of coating an inner surface of a tunnel section with sprayed concrete with the aid of an apparatus according to one of Claims 1 to 6, such that, the spray nozzle is kept at a distance of 1 to 3 m at right angles to the inner surface of the tunnel section during fire spraying process (col 6, lines 5-15).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON BOECKMANN whose telephone number is (571)272-2708. The examiner can normally be reached on 8:00- 5:00, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571) 272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3752

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason J Boeckmann/
Primary Examiner, Art Unit 3752
1/25/2011